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EXAMINER

ZHU, BO HUI ALVIN

ART UNIT	PAPER NUMBER
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2619

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 09/891,103	Applicant(s) EYUBOGLU ET AL.	
	Examiner BO HUI A. ZHU	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8, 10 – 27, 35 – 48, 50 – 81, 83 – 93 and 95 – 130 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8, 10 – 27, 35 – 48, 50 – 81, 83 – 93 and 95 – 130 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed with RCE on July 10, 2008 has been entered.
Claims 8, 10 – 27, 35 – 48, 50 – 81, 83 – 93 and 95 – 130 are pending.
Claims 8, 10 – 27, 35 – 48, 50 – 81, 83 – 93 and 95 – 130 are rejected.
The objections to the drawings have been withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
3. Claims 96 – 98, 113 – 120 and 129 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 96 – 98, 113 – 120 and 129 recite a computer-readable medium that stores executable instructions. This is no enablement for this subject matter in the specification. Thus one skilled in the art would not be enabled to make and/or use the invention.

Claim Rejections - 35 USC § 102

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4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 17, 36, 53, 67 - 69, 74, 78 - 81, 87, 91 - 94, 100, 110, 111 and 130 are rejected under 35 U.S.C. 102(b) as being anticipated by ZIV. Noam, A. (WO 98/09460).

(1) with regard to claims 17, 36, 53, 68, 69, 74, 78, 80, 81, 87, 91 - 94, 100, 110 and 111:

Noam discloses a method comprising: enabling many-to-many communication among radio network controllers (BSCs, 12A – 12C and 22A – 22C in Fig. 2) and radio nodes (BTSSs, 14A – 14I and 24A – 24I in Fig. 2) through a packet network (CIS, 26 in Fig. 2); establishing a first session for a first access terminal on a first radio network controller through a first radio node when the first access terminal is in a coverage area of the first radio node, wherein the first session is established when the first access terminal is dormant (e.g. when a remote unit 34 is in the coverage area of radio node 14E, a session has to be established on BSC 12B for managing the remote unit; a remote unit is considered dormant when it is currently not transmitting any user data); maintaining the first session on the first radio network controller as the first access terminal moves from the coverage area of the first radio node to any portion of a coverage area of a second radio node (when a remote unit 34 moves from the coverage area of 14E to the coverage area of 14A, the remote unit can still transmit and receive data through BSC 12B, thus the session of 34 on BSC 12B is maintained; see page 6,

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line 5 – page 7, line 7) through which a second dormant access terminal has a second session on a second radio network controller (a session exists between a remote unit and radio network controller 12A when the remote unit is in the coverage area of radio node 14A and transmits and receives data through BSC 12A), wherein the first session is maintained when the first access terminal is dormant (the session is maintained even when there is no user data traffic as controlling/signaling data inherently exists for managing the remote units); wherein when the first access terminal is dormant, the first access terminal has the first session established on the first radio network controller and does not have any traffic channel established with any radio network controller (even when no user data to transmit or receive, a session is required for transmitting and receiving any inherent controlling/signaling data); wherein when the second access terminal is dormant, the second access terminal has the second session established on the second radio network controller and does not have any traffic channel established with any radio network controller (even when no user data to transmit or receive, a session is required for transmitting and receiving any inherent controlling/signaling data).

(2) with regard to claims 67, 79 and 130:

Noam discloses a method and system, comprising: enabling a first radio node (14A on Fig. 2) to simultaneously serve both a first access terminal (e.g. a remote terminal that is inside the coverage area of BTS 14A) and a second access terminal (another remote terminal inside the coverage area of BTS 14A), the first access terminal having a first session established on a first radio network controller (12A on Fig. 2) and

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the second access terminal having a second session established on a second radio network controller (BSC 12B on Fig. 2; see page 6, line 31 – page 7, line 7), the radio node being interconnected with the radio network controllers using a packet network (26 on Fig. 2); wherein the radio node is enabled to simultaneously serve both the first access terminal and the second access terminal when the first access terminal is dormant (all BTS can simultaneously serve multiple remote terminals e.g. transmit control/signal information to the remote terminals); wherein when the first access terminal is dormant, the first access terminal has the first session established on the first radio network controller and does not have any traffic channel established with any radio network controller (even when no user data to transmit or receive, a session is required for transmitting and receiving any inherent controlling/signaling data); wherein when the second access terminal is dormant, the second access terminal has the second session established on the second radio network controller and does not have any traffic channel established with any radio network controller (even when no user data to transmit or receive, a session is required for transmitting and receiving any inherent controlling/signaling data).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 102 and 121 are rejected under 35 U.S.C. 103(a) as being unpatentable over ZIV. Noam, A. (WO 98/09460).

(1) with regard to claims 102 and 121:

Noam discloses a system and method, comprising: at a radio node in communication with a first radio network controller (12A on Fig. 2) and a second radio network controller (12B on Fig. 2) through a packet network (26 on Fig. 2) that enables many-to-many communication, routing access channel packets received from an access terminal (34 on Fig. 2) to a selected one of either the first radio network controller or the second radio network controller.

Noam however does not teach using Internet protocol address for addressing radio network controllers.

The Examiner takes Official Notice that the use of the Internet protocol and Internet protocol address is well known in the art and it would have been desirable to use it because it is readily accessible and widely used in the industry thus makes it cost effective to implement. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Internet protocol addresses.

8. Claims 8, 10 – 27, 35, 37 – 44, 48, 50 - 52, 54, 56 – 66, 70 – 73, 75, 76, 83 – 86, 88, 89, 92, 93, 95, 98, 99, 101, 103, 105 – 107, 109, 112, 113, 122 – 125 and 128 are rejected under 35 U.S.C. 103(a) as being unpatentable over ZIV. Noam, A. (WO 98/09460) in view of the admitted prior art (Fig. 1 and 2).

(1) with regard to claim 37, 95, 98 and 101:

Noam does not disclose sending an access channel message. The admitted prior art discloses sending an access channel message (page 5, lines 15 – 18). It would have been desirable to send an access channel message from the first access terminal to the first radio network controller through the second radio node because it would help establish connection between the access terminal and the radio network controller. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to send an access channel message in the system of Noam.

(2) with regard to claim 38, 54, 70 and 83:

Noam does not disclose signaling between the first radio network controller and the second radio network controller. The admitted prior art teaches signaling between the first radio network controller and the second radio network controller (page 5, lines 3 – 18). It would have been desirable to use signaling between the first radio network controller and the second radio network controller because it would make handoff procedure between two radio network controller more efficient. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use signaling between two radio network controllers in the system of Noam.

(3) with regard to claims 39, 51, 71, 84, 56, 106 and 123:

Noam discloses using packet routing technique for routing packets, however, does not teach using Internet protocol and Internet protocol address for routing packets. The Examiner takes Official Notice that the use of the Internet protocol and Internet protocol address for routing packets is well known in the art. It would have been desirable to use the Internet protocol because it is well known and readily accessible in

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the industry. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the Internet protocol in the system of Noam.

(4) with regard to claims 40, 72, 85 and 103:

Noam does not disclose using a session identifier. The admitted prior art teaches using a session identifier (Universal Access Terminal Identifier (UATI)). It would have been desirable to use a session identifier because it would make the handoff process more efficient. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to use a session identifier in the system of Noam.

(5) with regard to claims 41, 18, 73, 86, 105 and 122:

Noam does not disclose storing in the second radio node information to map a session identifier of the first access terminal to an Internet protocol address of the first radio network controller, using the stored information at the second radio node to determine the Internet protocol address of the first radio network controller using a session identifier included in an access channel message received from the first access terminal.

The admitted prior art teaches storing information to map a session identifier of the first access terminal to an Internet protocol address of the first radio network controller, using the stored information to determine the Internet protocol address of the first radio network controller using a session identifier included in an access channel message received from the first access terminal (Session/Mobility Manager, 52 and 53 on Fig. 2; see page 4 line 5 – page 6 line 15).

It would have been desirable to storing information to map a session identifier of the first access terminal to an Internet protocol address of the first radio network controller and using the stored information to determine the Internet protocol address of the first radio network controller using a session identifier included in an access channel message received from the first access terminal because it would make the handoff procedure of the access terminal efficient. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use this method in the system of Noam.

(6) with regard to claim 52:

Noam discloses each of the radio network controllers and each of the radio nodes are associated with a single subnetwork (see Fig. 2, each network controllers 12A – 12C and each radio nodes 14A – 14I are associated with a single subnetwork).

(7) with regard to claims 12 and 112:

Noam discloses traffic channel radio resourced are managed in the first and second radio nodes and the first or second radio network controller requests radio resources from the first or second radio node before adding any of its sectors to a traffic channel (since 14A can connect the remote terminals within its coverage area to 12A or 12B or 12C, it must be able to manage radio resource for the traffic, and the controller must be connected to 14A in order to set up a channel).

(8) with regard to claim 14:

Noam discloses the first session is transferred from the first radio network controller in one subnetwork to another radio network controller in another subnetwork

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based upon a predetermined criterion (12A and 14A – 14C is one subnetwork since 12A under normal circumstance supports 14A – 14C; 12B and 14D – 14F is another subnetwork).

(9) with regard to claim 15:

Noam discloses the session transfer is triggered by the first access terminal upon detection of a subnetwork change (when remote terminal 34 move from the coverage area of 12A to the coverage area of 12B or 12C).

(10) with regard to claim 16:

Noam discloses the session transfer is triggered by a radio network controller (in the case when the one controller has reached maximum capacity, another controller is used).

(11) with regard to claims 19, 20, 23 – 25, 88 and 89:

Noam does not disclose a RNC resource control agent. The admitted prior art discloses a RNC resource control agent (see page 5, line 3 – page 6, line 15). It would have been desirable to have a RNC resource control agent as taught by the admitted prior art because it would make the handoff procedure of the access terminal efficient. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use this method in the system of Noam.

(12) with regard to claims 26 and 27:

Noam does not disclose the radio network controllers include a PDSN function that includes Simple IP, Mobile IP and AAA client functions. The admitted prior art teaches a PDSN function that includes Simple IP, Mobile IP and AAA client functions

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(PDSN on Fig. 1 and 2). It would have been desirable to have a PDSN function because it provides efficient mobility management. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a PDSN function as taught by the admitted prior art in the system of Noam.

(13) with regard to claims 22, 43, 75, 107 and 124:

Noam disclose selecting the radio network controller based on at least on the loading of the first and second radio network controllers (page 6, lines 31 – 35).

(14) with regard to claims 21, 44, 76, 109, 125 and 128:

Noam discloses selecting the radio network controller based on at least on the routing distance between the radio node and the first and second radio network controllers (Fig. 1 and 2, the default controller for radio nodes 14A – 14C is 12A, for 14D – 14F is 12B, 14G – 14I is 12C, etc. based on routing distances).

(15) with regard to claims 35, 42, 48, 50 57, 58, 59, 8, 13, 10, 11, 60 – 66 and 99:

Noam further discloses establishing a first traffic channel between the first access terminal and the first radio network controller of the network through the first radio node when the first access terminal is in the coverage area of the first radio node (when remote unit 34 is in the coverage area of a first radio node 14E, a first traffic channel between the remote unit and a first radio network controller 12B is established through the first radio node 14E); establishing a second traffic channel between a second access terminal and a second radio network controller of the network through a second radio node when the second access terminal is in a coverage area of the

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second radio node (when the remote unit 34 or another remote unit is in the coverage area of a second radio node for example 14A, a second traffic channel between the remote unit and a second radio network controller 12A is established through the first radio node 14A); maintaining the first traffic channel without requiring the first traffic channel to pass through another radio network controller when the first access terminal moves from the coverage area of the first radio node to any portion of the coverage area of the second radio node (when a remote unit moves from the coverage area of 14E to the coverage area of 14A, the remote unit can still be using 12B and not passing through of another radio network controller; see page 6, line 5 – page 7, line 7).

9. Claims 45 – 47, 55, 77, 90, 104 and 127 are rejected under 35 U.S.C. 103(a) as being unpatentable over ZIV. Noam, A. (WO 98/09460) in view of the admitted prior art (Fig. 1 and 2) and further in view of Yucebay (US 5,983,282).

(1) with regard to claim 45:

Noam does not disclose employing a chassis-based hardware platform with multiple server cards to implement each of the first and second radio network controller. Yucebay teaches a chassis-based hardware platform with multiple server cards to implement each of the first and second radio network controllers (column 10, lines 20 – 26). It would have been desirable to have a chassis-based hardware platform with multiple server cards to implement each of the first and second radio network controllers because it would allow the controller to have the ability to support multiple networks. Therefore, it

would have been obvious to one of ordinary skill in the art at the time of the invention to use the teaching of Yucebay in the system of Noam.

(2) with regard to claim 46:

Noam does not disclose and routing incoming packets to server cards based on session identifier using an I/O card. The Examiner takes Official Notice that it is well known in the art that any switch or router commonly used in the industry have the functionality of routing incoming packets based on session identifiers using I/O cards (line cards or router ports of the router). It would have been desirable to route packets based on session identifier using an I/O card because this method is readily accessible and well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to route incoming packets based on session identifier using an I/O card in the system of Noam.

(3) with regard to claims 47, 55, 77, 90, 104 and 127:

Noam does not disclose the session identifier comprises 1xEV-DO UATI. The admitted prior art teaches using 1xEV-DO UATI (page 2, line 27). It would have been desirable to use 1xEV-DO because it is well known in the art and readily accessible thus makes it cost effective. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use 1xEV-DO in the system of Noam.

10. Claims 96, 97, 113 and 129 are rejected under 35 U.S.C. 102(b) as being unpatentable over ZIV. Noam, A. (WO 98/09460) in view of Langberg et al. (US 5,852,630).

(1) with regard to claims 96 and 97:

Noam discloses a method and system, comprising: enabling many-to-many communication among radio network controllers (BSCs, 12A – 12C and 22A – 22C in Fig. 2) and radio nodes (BTSSs, 14A – 14I and 24A – 24I in Fig. 2) through a packet network (CIS, 26 in Fig. 2); establishing a first traffic channel between a first access terminal and a first radio network controller of the network through a first radio node when the first access terminal is in a coverage area of the first radio node (when remote unit 34 is in the coverage area of a first radio node 14E, a first traffic channel between the remote unit and a first radio network controller 12B is established through the first radio node 14E); establishing a second traffic channel between a second access terminal and a second radio network controller of the network through a second radio node when the second access terminal is in a coverage area of the second radio node (when the remote unit 34 or another remote unit is in the coverage area of a second radio node for example 14A, a second traffic channel between the remote unit and a second radio network controller 12A is established through the first radio node 14A); maintaining the first traffic channel without requiring the first traffic channel to pass through another radio network controller when the first access terminal moves from the coverage area of the first radio node to any portion of the coverage area of the second radio node (when a remote unit moves from the coverage area of 14E to the coverage area of 14A, the remote unit can still be using 12B and no passing through of another radio network controller; see page 6, line 5 – page 7, line 7).

Noam however does not teach using a computer-readable medium that stores executable instructions for performing the method above.

Langberg et al. teaches a method for a transceiver warm start activation procedure can be implemented in software stored in a computer-readable medium. The computer-readable medium is an electronic, magnetic, optical, or other physical device or means that can contain or store a computer program for use by or in connection with a computer-related system or method (column 3, lines 51-65). Using a computer readable medium with program instruction code would be desirable because it would perform the same function of using hardware but offer the advantage of less expense, adaptability and flexibility. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the limitation as taught by Langberg et al. into the system of Noam so as to reduce cost and improve the adaptability and flexibility of the logic simulation.

(2) with regard to claim 129:

Noam discloses a method and system, comprising: simultaneously serve both a first access terminal (e.g. a remote terminal that is inside the coverage area of BTS 14A) and a second access terminal (another remote terminal inside the coverage area of BTS 14A), the first access terminal having a first session established on a first radio network controller (12A on Fig. 2) and the second access terminal having a second session established on a second radio network controller (BSC 12B on Fig. 2; see page 6, line 31 – page 7, line 7), the radio node being interconnected with the radio network controllers using a packet network (26 on Fig. 2); wherein the radio node is enabled to

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simultaneously serve both the first access terminal and the second access terminal when the first access terminal is dormant (all BTS can simultaneously serve multiple remote terminals e.g. transmit control/signal information to the remote terminals); wherein when the first access terminal is dormant, the first access terminal has the first session established on the first radio network controller and does not have any traffic channel established with any radio network controller (even when no user data to transmit or receive, a session is required for transmitting and receiving any inherent controlling/signaling data); wherein when the second access terminal is dormant, the second access terminal has the second session established on the second radio network controller and does not have any traffic channel established with any radio network controller (even when no user data to transmit or receive, a session is required for transmitting and receiving any inherent controlling/signaling data).

Noam however does not teach using a computer-readable medium that stores executable instructions for performing the method above.

Langberg et al. teaches a method for a transceiver warm start activation procedure can be implemented in software stored in a computer-readable medium. The computer-readable medium is an electronic, magnetic, optical, or other physical device or means that can contain or store a computer program for use by or in connection with a computer-related system or method (column 3, lines 51-65). Using a computer readable medium with program instruction code would be desirable because it would perform the same function of using hardware but offer the advantage of less expense, adaptability and flexibility. Therefore, it would have been obvious to one of ordinary skill

in the art at the time the invention was made to include the limitation as taught by Langberg et al. into the system of Noam so as to reduce cost and improve the adaptability and flexibility of the logic simulation.

(3) with regard to claim 113:

Noam further discloses routing access channel packets received from an access terminal (34 on Fig. 2 is being viewed as a third access terminal) to a selected one of either the first radio network controller or the second radio network controller.

Noam however does not teach using Internet protocol address for addressing radio network controllers.

The Examiner takes Official Notice that the use of the Internet protocol and Internet protocol address is well known in the art and it would have been desirable to use it because it is readily accessible and widely used in the industry thus makes it cost effective to implement. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Internet protocol addresses.

11. Claims 108 and 126 are rejected under 35 U.S.C. 103(a) as being unpatentable over ZIV. Noam, A. (WO 98/09460) in view of the admitted prior art (Fig. 1 and 2) and further in view of Abrol et al. (US 2002/0068570).

(1) with regard to claims 108 and 126:

Noam does not disclose using a 1xEV-DO Random Access Terminal Identifier. However, Abrol et al. teaches using a random access terminal identifier (paragraph

[0055]). It would have been desirable to use a random access terminal identifier for selecting a radio network controller because it would make the handoff process more efficient. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a random access terminal identifier as taught by Abrol et al. in the system of Noam.

12. Claims 98 and 114 – 118 and 120 are rejected under 35 U.S.C. 103(a) as being unpatentable over ZIV. Noam, A. (WO 98/09460) in view of Langberg et al. (US 5,852,630) and further in view of the admitted prior art (Fig. 1 and 2).

(1) with regard to claim 98:

Noam does not disclose receiving an access channel message. The admitted prior art discloses receiving an access channel message (page 5, lines 15 – 18). It would have been desirable to receive an access channel message from the first access terminal to the first radio network controller through the second radio node because it would help establish connection between the access terminal and the radio network controller. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to receive an access channel message in the system of Noam.

(2) with regard to claim 114:

Noam discloses using packet routing technique for routing packets, however, does not teach using Internet protocol and Internet protocol address for routing packets. The Examiner takes Official Notice that the use of the Internet protocol and Internet protocol address for routing packets is well known in the art. It would have been

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desirable to use the Internet protocol because it is well known and readily accessible in the industry. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the Internet protocol in the system of Noam.

(3) with regard to claim 115:

Noam does not disclose the session identifier comprises 1xEV-DO UATI. The admitted prior art teaches using 1xEV-DO UATI (page 2, line 27). It would have been desirable to use 1xEV-DO because it is well known in the art and readily accessible thus makes it cost effective. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use 1xEV-DO in the system of Noam.

(4) with regard to claim 116:

Noam does not disclose storing in the second radio node information to map a session identifier of the first access terminal to an Internet protocol address of the first radio network controller, using the stored information at the second radio node to determine the Internet protocol address of the first radio network controller using a session identifier included in an access channel message received from the first access terminal. The admitted prior art teaches storing information to map a session identifier of the first access terminal to an Internet protocol address of the first radio network controller, using the stored information to determine the Internet protocol address of the first radio network controller using a session identifier included in an access channel message received from the first access terminal (Session/Mobility Manager, 52 and 53 on Fig. 2; see page 4 line 5 – page 6 line 15).

It would have been desirable to storing information to map a session identifier of the first access terminal to an Internet protocol address of the first radio network controller and using the stored information to determine the Internet protocol address of the first radio network controller using a session identifier included in an access channel message received from the first access terminal because it would make the handoff procedure of the access terminal efficient. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use this method in the system of Noam.

(5) with regard to claim 117:

Noam discloses using packet routing technique for routing packets, however, does not teach using Internet protocol and Internet protocol address for routing packets. The Examiner takes Official Notice that the use of the Internet protocol and Internet protocol address for routing packets is well known in the art. It would have been desirable to use the Internet protocol because it is well known and readily accessible in the industry. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the Internet protocol in the system of Noam.

(6) with regard to claim 118:

Noam disclose selecting the radio network controller based on at least on the loading of the first and second radio network controllers (page 6, lines 31 – 35)..

(7) with regard to claims 120:

Noam discloses selecting the radio network controller based on at least on the routing distance between the radio node and the first and second radio network

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controllers (Fig. 1 and 2, the default controller for radio nodes 14A – 14C is 12A, for 14D – 14F is 12B, 14G – 14I is 12C, etc. based on routing distances).

13. Claim 119 is rejected under 35 U.S.C. 103(a) as being unpatentable over ZIV. Noam, A. (WO 98/09460) in view of Langberg et al. (US 5,852,630) and the admitted prior art (Fig. 1 and 2) and further in view of Abrol et al. (US 2002/0068570).

(1) with regard to claim 119:

Noam does not disclose using a 1xEV-DO Random Access Terminal Identifier. However, Abrol et al. teaches using a random access terminal identifier (paragraph [0055]). It would have been desirable to use a random access terminal identifier for selecting a radio network controller because it would make the handoff process more efficient. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a random access terminal identifier as taught by Abrol et al. in the system of Noam.

14. Claims 131 and 132 are rejected under 35 U.S.C. 103(a) as being unpatentable over ZIV. Noam, A. (WO 98/09460) in view of Yahagi (US 6,477,159).

(1) with regard to claim 131:

Noam further discloses establishment of the first session follows powering on of the first access terminal (inherent in Noam as remote units must be powered on to be able to operate with its controlling BSC).

Noam does not disclose the establishment of the first session permits establishment of a first traffic channel between the first access terminal and the first network controller of the network when the first access terminal is no longer dormant.

Vahagi teaches establishment of a session permits establishment of a first traffic channel between an access terminal and a network controller when the first access terminal is not dormant (see column 8, lines 1 – 18; an access channel between a base station and a mobile terminal enables establishment of a traffic channel).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Noam so that the session includes an access channel that enables establishment of traffic channels between the remote unit and the BSC as shown in Vahagi in order to reduce processing burden in managing the remote units when the remote units move from one base station to another.

(2) with regard to claim 132:

Noam does not disclose the first traffic channel is established in response to a connection request message sent by the first access terminal.

Vahagi teaches the first traffic channel is established in response to a connection request message sent by the first access terminal (column 8, lines 3, i.e. call connection requests sent by mobile terminals to base station).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Noam so that the session includes an access channel that allows establishment of traffic channels for the remote units in response to a connection request message send by the remote units as shown in Vahagi in order to

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reduce processing burden in managing the remote units when the remote units move from one base station to another.

Response to Arguments

15. Applicant's arguments with respect to claims 36, 67, 79, 80, 92, 93, 97, 100, 129 and 130 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BO HUI A. ZHU whose telephone number is (571)270-1086. The examiner can normally be reached on Mon-Thur 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571)272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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BZ
Examiner
September 9, 2008

/H. K./
Supervisory Patent Examiner, Art Unit 2619